

Claims

1. A method of transmitting service data between a first telecommunication device (10) and a second telecommunication device (18) of a telecommunication network (14), a central module generating prepaid access data, the prepaid access data comprising a first digital key and control data, and
5 the prepaid access data being stored in a memory module (11) of the first telecommunication device (10), and the central module generating a second digital key, assigned to the first digital key, the second digital key being stored on one or more control units (16) of the telecommunication network (14),
10 wherein

the first telecommunication device (10) determines a validity criterion based on control data of the prepaid access data, and encodes service data of the first telecommunication device by means of the first key, as long as the validity criterion is fulfilled, and

15 the first telecommunication device (10) transmits encoded service data to the control unit (16), the control unit (16) checking by means of the second digital key that the encoded service data are encoded with the first digital key, upon successful check the control unit (16) decoding the encoded service data, and the control unit (16) transmitting the decoded service data to
20 the second telecommunication device (18).

2. The method according to claim 1, wherein the prepaid access data stored in the memory module (11) of the first telecommunication device (10) are modified and/or deleted during the encoding of service data.

3. The method according to one of the claims 1 to 2, wherein the
25 prepaid access data stored in the memory module (11) of the first

AMENDED PAGE

telecommunication device (10) include a monetary amount value, this monetary amount value being modified and/or deleted during the encoding of service data.

4. The method according to one of the claims 1 to 3, wherein the
5 prepaid access data are stored on an SIM module (12) of the first telecommunication device.

5. The method according to one of the claims 1 to 4, wherein the encoding of the service data includes a digital encryption und/or digital signature, and the decoding of the service data includes a corresponding digital
10 decryption and/or verification of a digital signature.

6. The method according to one of the claims 1 to 5, wherein the prepaid access data include an authorization for the encoding of a definable quantity of service data, the prepaid access data being deleted as soon as the encoding of the definable amount of service data has been completed.

15 7. The method according to one of the claims 1 to 6, wherein a multiplicity of blocks with prepaid access data are storable in the memory module (11) of the first telecommunication device (10).

8. The method according to one of the claims 1 to 7, wherein the control data comprise a multiplicity of blocks, the determination of a validity
20 criterion as well as the modification or deletion of the corresponding block of control data being feasible for each block.

9. A system for carrying out the method according to one of the claims 1 to 8, with a first telecommunication device (10), including an SIM module (12), with an MSC (Mobile Switching Center) (16) which is connectible
25 to the first telecommunication device (10) via a telecommunication network (14), a central module comprising means for generation of prepaid access data with

AMENDED PAGE

a first digital key and with control data as well as of a corresponding second digital key, the SIM module (12) of the first telecommunication device (10) comprising means for storing the prepaid access data, and the MSC (16) comprising means for storing the second digital key, wherein

5 the first communication device (10) comprises means for checking the validity criteria of prepaid access data stored in the memory module, of encoding service data of the first communication device (10) by means of the first digital key as well as for transmitting the encoded service data to the MSC (16), and

10 the MSC (16) comprises means for checking the encoded service data by means of the second digital key, for decoding the encoded service data as well as for transmitting the service data to a second telecommunications terminal.

10. The system according to claim 9, wherein the first
15 telecommunication device (11) <sic.> includes an encryption module or a signature module for encryption or signature of service data by means of the first digital key, and the MSC (16) comprises a decryption module or a signature verification module for decryption or verification of the signature of encrypted or signed service data by means of the second digital key.

20

AMENDED PAGE